Draft Env-Ws 390 Water Conservation Rules Compliance Report

submitted by
Belmont Water Department
Belmont, NH

to
New Hampshire Department of Environmental Services

June, 2007

The purpose of this report is to document compliance of the Belmont Water Department (BWD) with the requirements of Env-Ws 390, Water Conservation Rules. The report is being submitted to the New Hampshire Department of Environmental Services (NHDES) along with a preliminary report that was prepared as part of the large community well siting requirements of Env-Ws 379 and the large groundwater withdrawal requirements of Env-Ws 388. Preliminary reports prepared under either of these regulation sets must be submitted with a separate report (as prescribed in Env-Ws 390.10) on the applicant's status with respect to the Water Conservation Rules. BWD is an existing large community water system that is in the process of constructing and permitting a new gravel-pack well, Well BRW-3. The well is south of Pout Pond, just west of two wells in the same aquifer that already serve the Belmont system. The portion of the regulations that are applicable to this situation are found mainly in Env-Ws 390.05, Requirements for Existing Large Community Water Systems.

Env-Ws 390.05(b) through (f) Water Meters - BWD has already installed water meters as prescribed in Env-Ws 390.05(b). Meters have been installed for public sector water users other than firefighting, for private water users, and for both of its production wells. The water meters are properly sized for their function, and the meters are selected installed and maintained in accordance with "Manual of Water Supply Practices, Water Meters – Selection, Installation, Testing, and Maintenance" document identification number AWWA M6, American water Works Association, 1999.

Meters for public sector and private water users are read on a quarterly basis. Meter readings are taken at the two wells on a daily basis.

Env-Ws 390.05(g) Water Audit, Leak Detection - BWD has a water audit and leak detection program in place. Water audits are done annually. This program is in accordance with specifications of the American Water Works Association's 1999 "Manual of Water Supply Practices, Water Audits and Leak Detection." Activities conducted under this program are documented in BWD files.

Env-Ws 390.05(h) Leak Repair - It is the policy of BWD to repair within 60 days of discovery all leaks identified in the course of carrying out water audit/leak detection activities. BWD understands that, for any such leak, it is obliged to obtain a waiver under Env-Ws 390.09 if it finds that it will be unable to repair the leak in a 60-day time-frame. BWD maintains in its files records of detections of individual leaks that include the date the leak was discovered, actions taken to fix it, and the date the leak was fixed. In the future, BWD will also maintain records of the estimated flow rates of individual leaks.

Env-Ws 390.05(i), (j) Unaccounted-For Water/Response Plan - BWD annually estimates the volume and percentage of unaccounted-for water in the water system in accordance with the "Manual of Water Supply Practices, Water Audits and Leak Detection" document identification number AWWA M36, American Water Works Association, 1999. These estimates are retained in BWD files. The most recent estimate of unaccounted-for water was 10%. BWD acknowledges that it would be obliged to prepare and submit a response plan to NHDES within 60 days if the percentage of unaccounted-for water in the system exceeded 15% of the total volume introduced to the system. If such a response plan had to be prepared, it would explain how BWD proposed to reduce unaccounted-for water to below 15% within two years. BWD would implement such a response plan upon approval from DES. Despite the two-year schedule for reducing the percentage of unaccounted-for water, BWD recognizes that it would continue to have the obligation to repair individual newly discovered leaks within 60 days of discovery.

Env-Ws 390.05(n) Pressure Reduction - Systems have an obligation to implement pressure reduction within one year of obtaining approval of new community wells, depending on technical feasibility, consistency with industry standards and regulations, and consistency with other public health and safety considerations. For the Belmont system, pressure reduction is only an issue in a small portion of the system near the wellfield along Shaker Road. In this area, pressure reduction measures have been taken at individual service connections.

Env-Ws 390.05(o) Rate Structure - Env-Ws 390.05(o) requires adoption of a rate structure that promotes water conservation within five years of approval of a new source. BWD's existing rate structure already satisfies the requirement. As required, the existing BWD rate structure is based on a unit price of water and the amount of water used by each connection to the system. Customers are charged at a rate that remains the same without regard to the volume of water consumed (i.e., the rate does not decrease with increasing water use). The current unit price for water is $2.10 per thousand gallons, for all customer categories. The volume-proportional water charge is added to a quarterly meter charge that varies in proportion to meter size. The range of meter charges is from $27.50 quarterly for a service using a 3/4-inch meter up to $797.50 quarterly for an eight-inch meter.

Env-Ws 390.05(p) Educational Outreach - BWD agrees to complete a water conservation educational outreach initiative. Regarding BWD's public notification and outreach obligations to municipal governments, BWD will send via certified mail a copy of the application and report required by Env-Ws 390.10 to the Town of Belmont (the only municipality served by the BWD system) and the Lakes Region Planning Commission. The system has no wholesale water customers who would have to receive this mailing. The mailing will include the Env-Ws 390 requirements summary prepared by NHDES. The cover letter will include a request to the Planning Board of the Town of Belmont to amend site planning requirements to reflect the requirements of Env-Ws 390 when applicable, and to promote water conservation landscaping for new projects.

BWD is required to implement an educational outreach initiative for its customers to promote water conservation immediately upon receiving approval for Well BRW-3. BWD acknowledges this requirement, and agrees to carry out the outreach initiative. Following approval of Well BRW-3, records of these ongoing water conservation educational efforts will be maintained in BWD files.

Initially, the educational outreach will consist of including copies of water conservation fact sheets from the DES web site. Specific fact sheets will include the following: Water Efficiency Practices for Domestic Indoor Water Use (WD-WSEB-26-2); Water Efficiency Practices for Outdoor Water Use (WD-WSEB-26-3); Performing a Domestic Water Use and Conservation Audit (WD-WSEB-26-15); and Water Conservation at Home (WD-WSEB-26-17). Copies of these sheets are attached. Fact sheets will be inserted in water bills twice a year, using a different fact sheet in each mailing. BWD may supplement the DES fact sheets with educational materials it develops itself.

Env-Ws 390.05(q) Certified Operator Supervision - As required, the activities described in this letter will be carried out by water system personnel under the supervision of a certified operator.